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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,451	02/28/2002	Shigeru Sugaya	7217/66560	1832

7590 03/02/2006

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New York, NY 10036

EXAMINER

JONES, PRENELL P

ART UNIT	PAPER NUMBER
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2668

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/085,451	<b>Applicant(s)</b> SUGAYA ET AL.	
	<b>Examiner</b> Prenell P. Jones	<b>Art Unit</b> 2668	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 June 2002.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-9 is/are allowed.
- 6) ☒ Claim(s) 1,4 and 5 is/are rejected.
- 7) ☒ Claim(s) 2,3 and 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haartsen (US 6,996,100) in view of Aiello et al (US PG PUB 20050276255).

Regarding claim 1, Haartsen discloses traffic allocation between a master unit and multiple units in as associated in a wireless environment wherein asynchronous services and synchronous services are supported (Abstract, col. 4, line 44-65), wherein the master unit (predetermined access control), which control access to slave units transmit packets to destinations, each segment/packet has a sequence number (col. 2, line 53-65), and flow bits (sequence number) added to packet, data information is transmitted from a high order layer into packets in

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sequence at a predetermined fragment/packet size is limited/fixed frame scheme, transmission buffer limits the number of segments sent (Fig. 11, col. 17, line 33-65, col. 18, line 4-20, sequence segment data/information is released to a higher layer and segments are released from to a higher layer, which indicates they are sent from a high layer to a higher layer), Haartsen is silent on dividing asynchronous data to be transmitted from a high order layer. However, in a communication system communicates asynchronous traffic as associated in a wireless system, Aiello discloses Aiello discloses a wireless LAN wherein the architecture includes wireless transmission among a plurality of nodes and access points/master and multiple slave units, and the communication of asynchronous traffic/packet data and asynchronous data stream transmitted from higher protocol layers with respect to a time slot or window size/predetermined fragment size (paragraph 0055, 0066, 0092-0100). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement dividing asynchronous traffic and transmitting traffic from higher layer into packets in sequence at a predetermined fragment size as taught by Aiello with the teachings of Haartsen for the purpose of having a more robust communication environment and minimizing contention in the system.

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mangin (US 6,925,060) in view of Aiello et al (US PG PUB 20050276255).

Regarding claim 4, Mangin discloses controlling traffic in a wireless environment wherein the architecture includes communication ATM packet information (packets of asynchronous information), transmission between source and destination is implemented whereby an acknowledgement is not received by a specified time, thereby initiating the expiration of a time-

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out (col. 10, line 3-21,col. 15, line 10-27). Mangin is silent on a plurality of transmission devices, which are communicating stations in a wireless transmission. However, in a wireless communication system wherein multiple nodes (slaves) are communicating asynchronous traffic with a master device, Aiello discloses a wireless LAN wherein the architecture includes wireless transmission among a plurality of nodes and access points, and the communication of asynchronous traffic/packet data and in the event after a predetermined number of verifications (predetermined time) that an acknowledgement is not received a time-out is triggered (paragraph 0020, 0024, 0025, 0080, 0088). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement monitoring and controlling traffic in wireless transmission that includes multiple transmission devices as taught by Aiello with the teachings of Mangin for the purpose of accommodating a demand for the communication of multiple uses or a larger network, where increased traffic usage requires controlled traffic techniques.

Regarding claim 5, as indicated above, Mangin discloses controlling traffic in a wireless environment wherein the architecture includes communication ATM packet information (packets of asynchronous information), transmission between source and destination is implemented whereby an acknowledgement is not received by a specified time, thereby initiating the expiration of a time-out (col. 15, line 10-27). Mangin further discloses a mechanism for controlling the size of the transmission windows as to prevent congestion (col. 8, line 13-50, col.15, line 11-15).

***Allowable Subject Matter***

1. Claims 7-9 are allowed over prior art.

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2. Claim 2, 3 and 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

3. The following is a statement of reasons for the indication of allowable subject matter:

Although the combined prior art of Mangin who discloses controlling traffic in a wireless environment wherein the architecture includes communication ATM packet information (packets of asynchronous information), transmission between source and destination is implemented whereby an acknowledgement is not received by a specified time, thereby initiating the expiration of a time-out, and Aiello who discloses a wireless LAN wherein the architecture includes wireless transmission among a plurality of nodes and access points, and the communication of asynchronous traffic/packet data and in the event after a predetermined number of verifications that an acknowledgement is not received a time-out is triggered, they fail to teach or suggest with respect to claim 2, writing a most recent sequence number buffered in said transmission buffer in a buffer pointer, and adding a sequence number starting from a value of a buffer point when asynchronous information is next divided into packets, with respect to claim 3, writing a most recent sequence number buffered in said transmission buffer in a buffer pointer and storing packets up to a value indicated by a total sequence-number space for the packet for which acknowledgement information is received from said wireless transmission apparatus of the information transmission destination minus one, when asynchronous information is next divided into packets, with respect to claim 6, selection-repeat-resend-type automatic resend request control, wherein only a packet which has not been received is selected and re-transmitted, with respect to claim 7 and 9, a wireless method utilizing selection-repeat-resend type automatic resend request control wherein a high-order-bit identification

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pointer for indicating the position in the total sequence-number space to which a low-order bit-map-space area, and virtually performing transmission control in the total sequence-number space by repeatedly using a low-order bit-map-space area and high-order-bit identification pointer, with respect to claim 8, storing the most recent sequence number buffered in buffering means as a buffer pointer, and a sequence number adding means for reading value of the buffer point and adding a sequence number when asynchronous information is next buffered.

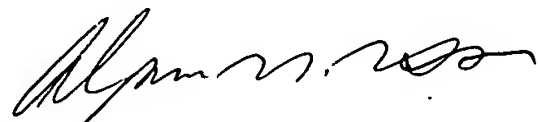
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prenell P. Jones whose telephone number is 571-272-3180. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Prenell P. Jones

February 23, 2006



**ALPUS H. HSU**  
**PRIMARY EXAMINER**